

SCOPE OF CLAIMS

1. A current source circuit characterized in by comprising a plurality of current sources which can control an output current value by a set signal inputted from outside, wherein a changing over means which can change over an electrical connection between an output line and the plurality of current sources is provided between the output line and the plurality of current sources.

2. A current source circuit characterized in by comprising a plurality of pairs of current sources which can control an output current value by a set signal inputted from outside, wherein a changing over means which can change over an electrical connection between an output line and a plurality of current sources is provided between the output line and the plurality of pairs of current sources.

3. A signal line driver circuit characterized in by comprising a plurality of current sources which can control an output current value by a set signal inputted from outside, a shift resistor, a first latch circuit, and a second latch circuit, wherein a changing over means which can change over an electrical connection between a signal line and the plurality of current sources is provided between the signal line and the plurality of current sources, and wherein the set signal is set according to the shift register.

4. A signal line driver circuit characterized in by comprising a plurality of current sources which can control an output current value by a set signal inputted from outside, a shift resistor, a first latch circuit, a second latch circuit, and switches provided in the plurality of current sources, wherein a changing over means which can change over an electrical connection between a signal line and the plurality of current sources is provided between the signal line and the plurality of current sources, wherein the set signal is set according to the shift register, and the switches are controlled by a signal from the second latch circuit.

5. A signal line driver circuit characterized in by comprising a plurality of current sources which can control an output current value by a set signal inputted from outside, a shift resistor, a first latch circuit, a second latch circuit, and switches provided in the plurality of current sources,

wherein a changing over means which can change over an electrical connection between a signal line and the plurality of current sources is provided between the signal line and the plurality of current sources, and
wherein the set signal is set according to the second latch circuit.

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6. A signal line driver circuit characterized in by comprising a plurality of current sources which can control an output current value by a set signal inputted from outside, a shift resistor, a first latch circuit, a second latch circuit, and switches provided in the plurality of current sources,

15 wherein a changing over means which can change over an electrical connection between a signal line and the plurality of current sources is provided between the signal line and the plurality of current sources,

wherein the set signal is set according to the second latch circuit, and
wherein the switches are controlled by a signal from the second latch circuit.

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7. A signal line driver circuit characterized in by comprising a plurality of current sources which can control an output current value by a set signal inputted from outside, a first shift register, a second shift register, a first latch circuit, and a second latch circuit,

25 wherein a changing over means which can change over an electrical connection between a signal line and the plurality of current sources is provided between the signal line and the plurality of current sources, and
wherein the set signal is set according to the first shift register.

30 8. A signal line driver circuit characterized in by comprising a plurality of current

sources which can control an output current value by a set signal inputted from outside,
a first shift register, a second shift register, a first latch circuit, a second latch circuit,
and switches provided in the plurality of current sources,

wherein a changing over means which can change over an electrical connection between
5 a signal line and the plurality of current sources is provided between the signal line and
the plurality of current sources,

wherein the set signal is set according to the first shift register, and

wherein the switches are controlled by a signal from the second latch circuit.

10 9. A signal line driver circuit characterized in by comprising a plurality of first and
second current sources which can control an output current value by a set signal
inputted from outside, a shift register, a first latch circuit comprising the first current
source, and a second latch circuit comprising the second current source,

wherein a changing over means which can change over an electrical connection between
15 a signal line and the plurality of first and second current sources is provided between the
signal line and the plurality of first and second current sources,

wherein a set signal inputted to the first current source is set according to from the shift
register, and

wherein a set signal inputted to the second current source is set according to a current
20 set in the first current source.

10. A signal line driver circuit characterized in by comprising a plurality of first and
second current sources which can control an output current value by a set signal
inputted from outside, a shift register, a first latch circuit comprising the first current
25 source, a second latch circuit comprising the second current source, a first switch
provided between the first latch circuit, and the second latch circuit and a second switch
provided between the second latch circuit and the changing over means,

wherein a changing over means which can change over an electrical connection between
a signal line and the plurality of first and second current sources is provided between the
30 signal line and the plurality of first and second current sources,

wherein a set signal inputted to the first current source is set according to from the shift register,

wherein a set signal inputted to the second current source is set according to a current set in the first current source, and

- 5 wherein the first and the second switches are controlled by a signal from the second latch circuit.

11. A signal line driver circuit characterized in by comprising a plurality of pairs of current sources which can control an output current value by a set signal inputted from outside, a shift register, and a latch circuit comprising the pair of current sources,
- 10 wherein a changing over means which can change over an electrical connection between a signal line and the plurality of pairs of current sources is provided between the signal line and the plurality of pairs of current sources, and
- wherein a set signal inputted to the pair of current sources is set according to from the
- 15 shift register.

12. A signal line driver circuit characterized in by comprising a plurality of pairs of current sources which can control an output current value by a set signal inputted from outside, a shift register, a latch circuit comprising the pair of current sources and first
- 20 and second switches,
- wherein a changing over means which can change over an electrical connection between a signal line and the plurality of pairs of current sources is provided between the signal line and the plurality of pairs of current sources,
- wherein a set signal inputted to the pair of current sources is set according to from the
- 25 shift register, and
- the first and second switches are controlled by a latch pulse.

13. The signal line driver circuit according to any one of claims 3 to 12 characterized in that the changing over means comprises a plurality of analog switches, and
- 30 that the current source is connected to the signal line through the analog switch.

14. The signal line driver circuit according to any one of claims 3 to 12 characterized in that the changing over means comprises three analog switches for each of the signal line, and
5 that the each of the three analog switches are connected to the different current sources.
15. The signal line driver circuit according to any one of claims 3 to 12 characterized in that the changing over means comprises a group of analog switches formed by a plurality of analog switches and a group of current source circuit formed by a plurality
10 of the current sources.
16. A light emitting device characterized in by comprising the signal line driver circuit according to any one of claims 3 to 12.
- 15 17. A light emitting device characterized in by comprising two of the signal line driver circuit according to any one of claims 3 to 12 and a pixel portion, wherein the two signal line driver circuits have a function to input a difference of currents supplied from current sources of each to the pixel portion.
- 20 18. A light emitting device characterized in by comprising the signal line driver circuit according to any one of claims 3 to 12 and a pixel portion, wherein in the pixel portion, the signal line and a plurality of scan lines are aligned in matrix, wherein a light emitting element is disposed at an intersection of the signal line and the
25 scan line, and wherein a transistor for switching which controls a current from the signal line and a transistor for controlling current which controls a current to be supplied to the light emitting element are provided.
- 30 19. A driving method of a signal line driver circuit characterized in by comprising a

current source circuit comprising a plurality of current sources, a means for setting a current of the plurality of current sources, a plurality of signal lines through which the set current flows, and a changing over means provided between the signal line and the current source,

- 5 wherein the changing over means changes over a connection of the signal line and the current source circuit in each certain period.

20. The driving method of a signal line driver circuit according to Claim 19 characterized in that the certain period is provided in a unit of frame period
10 corresponding to a synchronized timing of a video signal inputted to the signal line.

21. The driving method of a signal line driver circuit according to Claim 19 characterized in that a unit of frame period corresponding to a synchronized timing of a video signal inputted to the signal line comprises a write period, and
15 wherein the certain period is provided so as not to overlap the write period.

22. The driving method of a signal line driver circuit according to Claim 19 characterized in that a unit of frame period corresponding to a synchronized timing of a video signal inputted to the signal line comprises m (m is a natural number of 2 or
20 more) subframe periods SF1, SF2, ..., SF m , and that the certain period is provided in the subframe period.

23. The driving method of a signal line driver circuit according to claim 19 characterized in that a unit of frame period corresponding to a synchronized timing of a
25 video signal inputted to the signal line comprises m (m is a natural number of 2 or more) subframe periods SF1, SF2, ..., SF m , and the subframe periods SF1, SF2, ..., SF m each comprises write periods Ta1, Ta2, ..., Tam and display periods Ts1, Ts2, ..., Tsm, and that the certain period is provided in the subframe period.

30 24. The driving method of a signal line driver circuit according to claim 19

characterized in that a period for performing a set operation by a means for setting a current of the plurality of current sources is provided in the certain period.

25. The driving method of a signal line driver circuit according to claim 24
5 characterized in that an operation to change over an electrical connection between the signal line and the current source and the set operation are not overlapped with each other in the certain period.

26. The driving method of a signal line driver circuit according to claim 25
10 characterized in that the operation to change over an electrical connection between the signal line and the current source is provided after the set operation in the certain period.